

ABSTRACT OF THE DISCLOSURE

A method of manufacturing a tyre for a vehicle wheel includes making a carcass structure on a drum, applying a belt structure and tread band, and shaping the tyre. Making the carcass structure includes feeding at least one semi-finished product onto the drum, disposing at least one separating element radially external to the at least one semi-finished product, feeding at least one carcass ply onto the drum, disposing annular elements radially external to the at least one carcass ply, turning up the at least one carcass ply around at least one of the annular elements, removing the at least one separating element, and applying bead cores. The drum includes a central portion, two side portions, at least one transport device for bead cores, at least one pressure device, at least one turning-up device for the at least one carcass ply, and a device adapted to radially modify the drum surface.